

REMARKS/ARGUMENTS

Applicants submit this Amendment in reply to the Office Action mailed August 28, 2003.

In this Amendment, Applicants amend the title to improve clarity. Applicants also amend claims 35 and 45 to recite “an effective amount of at least one activator, expressed as equivalents of zinc oxide, less than or equal to 0.6% by weight based on the total weight of the tread”, amend claim 52 to recite “wherein, once vulcanized, the rubber composition comprises an amount of extractable residue of the at least one vulcanization accelerator greater than or equal to 0.5% and less than or equal to 1.8% by weight based on a total weight of the rubber composition”, and amend claim 65 to recite “wherein a rubber composition comprising the vulcanization system, once vulcanized, comprises an amount of extractable residue of the at least one vulcanization accelerator greater than or equal to 0.5% and less than or equal to 1.8% by weight based on a total weight of the rubber composition” to better define the claimed invention. Additionally, Applicants amend claims 35, 40, 41, 44, 45, 48, 49, 52, 58, 59, 64, and 65 to improve clarity.

Before entry of this Amendment, claims 35-68 were pending in this application. After entry of this Amendment, claims 35-68 remain pending in this application.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to the title and claims 35, 40, 41, 44, 45, 48, 49, 52, 58, 59, 64, and 65. No new matter was introduced.

In the Office Action, the Examiner rejected claims 35-68 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,861,842 to Cohen et al. (“Cohen”).

Period for Reply

Applicants note that the Office Action does not set a shortened statutory period for reply. Thus, the period for reply to the Office Action mailed August 28, 2003, runs through March 1, 2004 (February 28, 2004, is a Saturday; and February 29, 2004, is a Sunday).

Right of Priority and Benefit

In the Preliminary Amendment filed with the application on June 20, 2001, Applicants indicated that the present application is a continuation of International Patent Application No. PCT/EP99/10190, filed December 20, 1999, in the European Patent Office. Applicants also claimed the right of priority under 35 U.S.C. § 119(a) - (d) based on patent application No. 98204414.1, filed December 22, 1998, in the European Patent Office. Additionally, Applicants claimed the benefit under 35 U.S.C. § 119(e) based on prior-filed, copending provisional application No. 60/114,256, filed December 28, 1998, in the U.S. Patent and Trademark Office (“USPTO”). However, the Office Action Summary (PTO-326) does not appear to acknowledge any of these claims. Applicants respectfully request that the Examiner expressly acknowledge Applicants’ claims to the right of priority and benefit in the next paper mailed from the USPTO.

Unexpected Results

As discussed in the specification, the present invention yields several unexpected results, including at least: (a) tires with increased resistance to wear; (b) limiting of problems related to the use of polybutadiene in the polymer base of a rubber composition of a tire; (c) improved tire performance in terms of tear resistance; and (d) improved tire performance in terms of resistance to the chunking phenomenon.

The increased resistance to wear is accompanied by substantially unaltered values of rolling resistance and wet-skid resistance. (Specification, p. 4/II. 23-29, p. 27/II. 11-20, p. 28/II. 21-31, p. 30/II. 1-10, and Tables II, IV, and VI). Rubber compositions showing this increased resistance to wear include those where the reinforcing filler is 100% silica (id., Table II), 50% silica and 50% carbon black (id., Table IV), and 100% carbon black (id., Table VI).

Problems related to the use of polybutadiene include, for example, difficulty in homogeneously dispersing polybutadiene in a polymer base and reductions in wet-skid resistance. (Id., p. 5/II. 20-26). The present invention allows reduction in the amount of polybutadiene in the polymer base and, in some instances, the elimination of polybutadiene from the polymer base. (Id.).

The performance of a tire of the invention can be optimized both in terms of tear resistance and resistance to the chunking phenomenon, particularly under severe-use conditions. (Id., p. 5/II. 27-31).

Thus, there is significant evidence of unexpected results within the ranges claimed in the present invention.

Section 102(b) Rejection—Independent Claims 35 and 45

In this Amendment, Applicants amend claims 35 and 45 to recite “an effective amount of at least one activator, expressed as equivalents of zinc oxide, less than or equal to 0.6% by weight based on the total weight of the tread”. These amendments are supported at least at p. 9/II. 19-23 of the originally-filed specification.

Applicants note that the specific examples of Cohen appear to use an amount of zinc-oxide activator about 1.5% by weight based on the total weight of the tread (Examples 3-6) or about 2.3% by weight based on the total weight of the tread (Examples 7 and 8). Thus, to the extent that Cohen proposes a range of zinc-oxide activator that touches, overlaps, or is within the claimed range of the present invention, Applicants submit that Cohen does not appear to propose specific examples falling within the ranges claimed in amended claims 35 and 45 of the present invention. Additionally, Applicants submit that: (1) Cohen teaches a relatively broad activator range; (2) amended claims 35 and 45 claim a relatively narrow activator range; and (3) there is significant evidence of unexpected results within the ranges claimed in amended claims 35 and 45. For at least these reasons, Applicants submit that Cohen does not disclose the subject matter of amended claims 35 or 45 with sufficient specificity to constitute anticipation under 35 U.S.C. § 102(b). (See MPEP 2131.03).

Section 102(b) Rejection—Independent Claim 52

Claim 52 recites “an amount less than or equal to 2 phr, expressed as equivalents of zinc oxide, of at least one activator”. In this Amendment, Applicants also amend claim 52 to recite “wherein, once vulcanized, the rubber composition comprises an amount of extractable residue of the at least one vulcanization accelerator greater than or equal to 0.5% and less than or equal to 1.8% by weight based on a total weight of the rubber composition”.

Applicants note that the specific examples of Cohen appear to use an amount of zinc-oxide activator equal to 3.0 phr (Examples 3-6) or 4.0 phr (Examples 7 and 8). Thus, to the extent that Cohen proposes a range of zinc-oxide activator that touches, overlaps, or is within the claimed range of the present invention, Applicants submit that Cohen does not appear to propose

specific examples falling within the ranges claimed in amended claim 52 of the present invention. Additionally, Applicants submit that: (1) Cohen teaches a relatively broad activator range; (2) amended claim 52 claims a relatively narrow activator range; and (3) there is significant evidence of unexpected results within the range claimed in amended claim 52. For at least these reasons, Applicants submit that Cohen does not disclose the subject matter of amended claim 52 with sufficient specificity to constitute anticipation under 35 U.S.C. § 102(b). (See MPEP 2131.03).

Section 102(b) Rejection—Independent Claim 65

Claim 65 recites “an amount less than or equal to 2 phr, expressed as equivalents of zinc oxide, of at least one activator”. In this Amendment, Applicants also amend claim 65 to recite “wherein a rubber composition comprising the vulcanization system, once vulcanized, comprises an amount of extractable residue of the at least one vulcanization accelerator greater than or equal to 0.5% and less than or equal to 1.8% by weight based on a total weight of the rubber composition”.

Similar to the discussion of claim 52 above, Applicants note that the specific examples of Cohen appear to use an amount of zinc-oxide activator equal to 3.0 phr (Examples 3-6) or 4.0 phr (Examples 7 and 8). Thus, to the extent that Cohen proposes a range of zinc-oxide activator that touches, overlaps, or is within the claimed range of the present invention, Applicants submit that Cohen does not appear to propose specific examples falling within the ranges claimed in amended claim 65 of the present invention. Additionally, Applicants submit that: (1) Cohen teaches a relatively broad activator range; (2) amended claim 65 claims a relatively narrow activator range; and (3) there is significant evidence of unexpected results

within the range claimed in amended claim 65. For at least these reasons, Applicants submit that Cohen does not disclose the subject matter of amended claim 65 with sufficient specificity to constitute anticipation under 35 U.S.C. § 102(b). (See MPEP 2131.03).

Dependent Claims 36-44, 46-51, 53-64, and 66-68

Applicants submit that dependent claims 36-44, 46-51, 53-64, and 66-68 also are patentable under 35 U.S.C. § 102 over the cited references, including Cohen and the other art of record, at least due to the direct or indirect dependency of claims 36-44 from independent claim 35, the direct or indirect dependency of claims 46-51 and 66-68 from independent claim 45, and the direct or indirect dependency of claims 53-64 from independent claim 52.

Claim Scope

In discussing the specification, claims, abstract, and drawings in this Amendment, it is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicants believe that Applicants are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Summary

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this Application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.



Dated: March 1, 2004

By: _____

Lawrence F. Galvin
Reg. No. 44,694